MARA University of Technology

AN ANALYSIS OF VOIP INTERNET TELEPHONY PERFORMANCE BASED ON QUALITY OF SERVICE (QoS)

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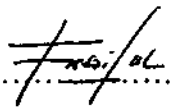
CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project that the originality work is my own except as specified in the references and acknowledgement and that the original work contained herein have not been taken or done by unspecified sources or persons.



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ABSTRACT

This project examines the performance of VoIP Internet Telephony based on QoS parameters through Direct and Indirect LAN. The performance is analyzed by using Acterna PVA-1000, NetQuality and AnalogX-NetStat Live. Acterna PVA-1000 is an analysis tool for Indirect LAN while NetQuality is used for analysis in Direct LAN. Both tools will use the same QoS parameters which are packet loss, jitter and voice quality. Then, AnalogX-Netstat Live is used for analysis to throughput and bandwidth for Direct and Indirect LAN. To find out the reason VoIP is not inadequate for integrated of voice and data transmission, this research project is conducted with the main goal is to analyze the performance of VoIP Internet Telephony based on the Quality of Service (QoS) parameters. Analysis to the performance of VoIP through the Quality of Service (QoS) consists of two phases. The first phase is analyzing VoIP performance on Direct and Indirect LAN. The second and the only phase is to make comparison to the performance between the findings of the first phase. Outcomes of the analysis had found that, both source and destination addresses either in Direct or Indirect LAN faced degradation of voice quality in the network. But the quality is least affected at the source address which is initiated the conversations rather than at the destination address. Moreover, VoIP performance in Indirect LAN is suffered to degradation of voice quality compare to Direct LAN.

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